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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,722	08/29/2003	Shouichi Hoshi	D-1490	7718

32628 7590 03/22/2005

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EXAMINER
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SHARP, JEFFREY ANDREW

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/650,722

Applicant(s)

HOSHI, SHOUICHI

Examiner

Jeffrey Sharp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 5 is/are rejected.
- 7) ☒ Claim(s) 6-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This action is responsive to Applicant's remarks and amendment filed on 14 February 2005.

#### ***Status of Claims***

[1] Claims 1-2 and 4-9 are pending.

Claim 3 has been cancelled.

Claims 1, 2, 4, and 5 stand rejected.

Claims 6-9 are objected to.

#### ***Specification***

[2] Applicant's amendments to the specification have been acknowledged. No new matter has been added. Accordingly, all previous objections to the specification have been withdrawn.

#### ***Claim Objections***

[3] In view of Applicant's remarks and amendment filed on 14 February 2005, the objections to claims 4 and 5 have been withdrawn.

It is suggested the word '*behind*' on line 8 of claim 2 be replaced with --flushly adjacent to-- for clarity.

#### ***Response to Arguments***

#### ***Claim Rejections - 35 USC § 102***

[4] Claims 1, 2, and 5 were previously rejected under 35 U.S.C. 102(b) as being anticipated by Meyer US-5,775,860.

Applicant's arguments with respect to the rejection(s) of these claim(s) have been fully considered and are persuasive. Applicant has amended to state a first and second strength such that the engaging projection is weaker than the strength of the second engaging portion. Meyer is silent as to the strength of engaging projection (22) compared to the strength of second engaging portion (50,52,66,64). Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made below.

***Claim Rejections - 35 USC § 103***

[5] Claim 4 was previously rejected under 35 U.S.C. 103(a) over Meyer US-5,775,860 in view of JP 2002-106519.

Applicant's arguments filed with respect to the rejection of this claim have been fully considered but they are not persuasive. JP 2002-106519 is clearly within the field of endeavor, and suggests a maintaining engagement portion (6,16) disposed on either the head portion of the female part or the pressing head portion of the male part so as to provide a positive permanent lock connection between the two parts, thereby preventing accidental separation after assembly.

[6] Claim 6 was previously rejected under 35 U.S.C. 103(a) over Meyer US-5,775,860 in view of Morel US-4,276,806.

Applicant's arguments filed with respect to the rejection of this claim have been fully considered and are persuasive. After further consideration of the art, it would not be obvious to modify what are construed as projections (22) taught by Meyer, to comprise cutout portions (i.e., be formed from a wall of the leg portion via a surrounding 3-wall cutout portion forming the

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engaging projection), and first engaging portion being located in the cutout portion. Although Morel does teach a temporary engagement position between similar male and female parts comprising a first engaging portion of a male part engaging the cutout portion of a female part, the combination of functional limitations from Morel incorporated into the structure of Meyer would be improper. Accordingly, this rejection has been withdrawn.

***New Grounds of Rejection***

***Claim Rejections - 35 USC § 103***

[7] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[8] Claims 1, 2, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer US-5,775,860

Meyer teaches:

A female part (14) comprising:

a head portion (16),

leg portion (20,24),

inner space (28),

flexible outward engaging projection (22),

A male part (12) comprising:

a head portion (38),  
inserting leg (40, 44),  
first outward engaging portion (46) near the forward end (42)  
which engages an inner wall of the female part (62, 3%),  
second outward engaging portion (52) near the base end (near 50)  
which is disposed in the inner wall (area 62) upon 111 insertion.

However, Meyer is silent about an engaging projection (22) having a first strength, the second outward engaging portion (52) having a second strength greater than the first strength, in order to allow the female part to deflect inwardly into the hole before the male part (12) overcomes the greater second strength and follows suit.

It would be readily understood and appreciated by those of ordinary skill in the art, that each of the engaging projection (22) and second outward engaging portion (52) taught by Meyer have an inherent strength, as all objects have a '*strength of materials*'. From the drawing depictions and descriptions, it would be obvious to those having an ordinary skill in the art, that the engaging projections (22) of the female part (14) are more easily inwardly deflectable than the second engaging portion (52), satisfying the limitation '*first strength*' and '*second strength greater than the first strength*'. Bullet nose-type female receptacles like that taught by Meyer (14) are gradually tapered over a sufficient length to form a smooth ramped cam surface having an outer diameter only sufficiently larger than that of a surrounding aperture. They are primarily designed for easy insertion with a slight 'push'. Projections (22) would most certainly deflect inwardly with less force than second projections (52) due to the larger opening (28) of the female

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part (14) between the projections (22) over a greater length than the length of opening (48) of the male part (12), which separates the second engaging portion (52) projections (66,64).

It is not required that the prior art disclose or suggest the properties newly-discovered by an applicant in order for there to be a prima facie case of obviousness. *See In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897, 1905 (Fed. Cir. 1990). Moreover, as long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. *See In re Beattie*, 974 F.2d 1309, 24 USPQ2d 1040 (Fed. Cir. 1992); *In re Kronig*, 539 F.2d 1300, 190 USPQ 425 (CCPA 1976) and *In re Wilder*, 429 F.2d 447, 166 USPQ 545 (CCPA 1970). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F. 2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this regard, a conclusion of obviousness may be based on common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference. *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969).

As for claim 2, the second outward engaging portion (52) is located 'behind' (i.e., 'flushly adjacent to') the flexible outward engaging projection (22) of the female part (14). When the male part (12) is completely inserted into the female part (14), second engaging projection (52) is disposed in the inner wall (62) of the female part (14), and may prevent the engaging projection (22) from bending inwardly (via. a 'wedge lock effect' shown in Figure 4). First outward engaging portion (46) co-operates with the second engaging portion (52) to help with this function. The inserting leg (40) of the male part (12) has a length, and in the temporary engaging state, the inserting leg (40) of the male part (12) is located above the engaging projection (22) of the female part (14) so as to allow the engaging projections (22) inwardly deflect towards free space (28) (see Figure 3). Applicant is reminded that functional claim language that does not significantly limit the claimed structure is considered intended use.

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As for claim 5, the second engaging portion (52) of the male part includes a projection triangular barb formed on the outer surface of the insertion leg (40), and there is an empty space (48) for allowing the projection to bend elastically inward.

*Allowable Subject Matter*

[9] Claims 6 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Although the prior art of record (Morel) teaches a temporary engagement position between male and female parts comprising a first engaging portion on the male part engaging the cutout portion of a female part, and Meyer teaches cutout portions (opening 28) that define engagement projections (22), there would be no obvious motivation to combine the Meyer and Morel references to arrive at both structural limitations and functional recitations.

Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record (Meyer) fails to suggest a second engaging portion (52) being located behind a rib on the female part (14) in the permanent engaging state, with the leg portion (20,24) of the female part (14) interposed therebetween.



*Conclusion*

[10] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


[11] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Sharp whose telephone number is currently (703) 305-0426, but will change to (571) 272-7074 in April 2005 due to a move to the Alexandria, VA campus. The examiner can normally be reached 7:00 am - 5:30 pm Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached on (703) 306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAS

  
ROBERT J. SANDY  
PRIMARY EXAMINER